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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,495	06/28/2001	Shinichi Yamada	057250903	5364

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WASHINGTON, DC 20001-4413

EXAMINER
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YU, GINA C

ART UNIT	PAPER NUMBER
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1617

MAIL DATE	DELIVERY MODE
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01/10/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

09/857,495

Applicant(s)

YAMADA ET AL.

Examiner

Gina C. Yu

Art Unit

1617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19-82 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-82 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 31, 2007 has been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 54 and 55 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claim 54 recites that additives including thickeners can be further added to the composition of claim 19, which is limited to a low viscosity liquid composition with a specific viscosity. Addition of the ingredients will affect the viscosity of the composition of the base claim, and it is not clear whether the viscosity limitation of claim 19 can be consistently applies to claim 54.

Claim 55 is rejected as depending on an indefinite base claim.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**Claims 19, 27-31, 35-54, 56, 57, 61-64, 69-71, 74, 79-81 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lambers et al. (US 5693677) in view of Oblong et al. (US 5939082).**

Lambers teaches a cosmetic emulsion comprising a ceramide III derivative. The reference teaches that isocetyl alcohol is used to dissolve ceramide III and its derivative dissolve, and adding ethanol propylene glycol or butylene glycol further enhances the solubility. See Example 2; col. 3, lines 46 – 53. The suitable vehicles for the invention include water and liquids. See col. 4, lines 8 - 13. With respect to claim 57, "a composition to be applied to the hair" denotes the intended future use of the product made by the claimed method, and is not viewed patentably distinct from the claimed method of making a skin cosmetic.

While Lambers does not teach adding cationic surfactant, it is well known practice in cosmetic art to use cationic surfactants to stabilize oil-in-water emulsions, as shown in Oblong. See col. 13, lines 58 – col. 16, line 6. The reference also teaches that cosmetic compositions with low viscosity can be made with viscosity of about 50 cps or less. See col. 8, lines 20-25.

It would have been obvious to a skilled artisan to modify the cosmetic composition of Lambers by incorporating cationic surfactants as motivated by Oblong because the later teaches that cationic surfactants stabilizes oil-in-water emulsions. The skilled artisan would

have had a reasonable expectation of successfully stabilizing an emulsion which contains ceramide III dissolved in liquid fatty alcohol such as isocetyl alcohol.

**Claims 19, 20, 27-29, 32, 33, 52-54, 61, 56-58, 64-66, 69, 72-76, and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann (US 6110450) in view of Flick (Cosmetic and Toiletry Formulations, 1995).**

The broadest claim in the instant case claims a liquid composition comprising at least one ceramide, at least one liquid fatty alcohol, and at least one cationic surfactant in a cosmetically acceptable medium, wherein the at least one fatty alcohol contains "no more than one hydroxyl group", and wherein the composition has a viscosity of less than or equal to 1000 cPs. While the claim requires at least one liquid fatty alcohol with only one hydroxyl group in the composition, examiner construes the claim in such a way that it does not exclude the presence of liquid fatty alcohols with more than one hydroxyl groups. See MPEP § 2111.03. Examiner takes such position since the specification does not support excluding diols or triols from the composition. See In re Grasselli, 713 F.2d 731, 218 USPQ 769 (Fed. Cir. 1983).

Bergmann teaches a hair care composition comprising at least one ceramide and/or glycosceramide in a cosmetically acceptable medium. See abstract. . The reference teaches using 0.001-1 % of phytantriol, which is a liquid fatty alcohol, with 0.001-1 % of ceramides. See col. 7, lines 39-45. Cationic surfactants are taught in col. 6, lines 27-34. Example 2 shows an aqueous formulation comprising oleoyldihydrosphingosine, cationic surfactants (components 1 and 4), and additives. See instant claims 57 and 58. The reference teaches the application of the composition in permanent hair waving

composition. See col. 7, lines 19 – 26. The methods for treating and protecting hair in instant claims 64, 65, 74, and 75 are obvious use of the prior art composition.

The reference teaches that the final product may be in the form of liquid, but does not specifically mention the viscosity of hair liquid composition. See col. 7, lines 27 – 38.

Flick teaches a hair liquid formulation having a viscosity of 6 cps. See p. 65, Hair Liquid. The formulation contains 1 % of 2-hexyldecyl alcohol, which is a liquid branched fatty alcohol with one OH group. See instant claim 33. Varying the weight amount of the fatty alcohol to find an optimum weight range would have been within the skill of the art. See instant claim 34.

It would have been obvious to one of ordinary skill in the art at the time of the present invention to modify the teachings of Bergmann by formulating a hair liquid composition as taught by the reference. Since Bergmann teaches to make a hair liquid composition, the skilled artisan would have had a reasonable expectation of successfully making a hair liquid formulation of a low viscosity which is within the viscosity limitation of the claimed invention.

**Claims 21-26, 34, 59, 60, 67, 68, and 77-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann and Flick as applied to claims 19, 20, 27-29, 32, 33, 52-54, 61, 56-58, 64-66, 69, 72-76, and 82 as above, and further in view of Maubru (US 6312674 B1).**

Bergmann and Flick fail to teach the specific ceramides of instant claims.

Maubru teaches oxidizing composition for bleaching or permanent reshaping hair, wherein the composition comprises ceramides disclosed in col. 3, line 21 – col. 16, line 13 in order to limit or prevent “deterioration in the mechanical properties of the hair”, particularly breaking of the hair and to obtain beautiful curls that withstand blow-drying and have good hold”. See col. 1, line 38 – col. 2, line 10. The reference specifically teaches bis(N-hydroxyethyl-N-cetyl)malonamide and 2-N-oleoylaminoctadecane-1,3-diol. See col. 5, lines 1 – 16. See instant claims 25-29. It is noted that oxidizing composition is used in “fixing step” in the permanent waving/straightening process. See col. 1, lines 1-29. Adding cationic polymers as a cosmetic additive is also suggested. See col. 5, lines 54 – 58; instant claim 19, 57, 64, and 74. The reference further teaches that the invention may contain other additives that are “known for their use in oxidizing compositions for bleaching or permanent reshaping of the hair”. The claimed process of treating is necessarily practiced when the composition is used according to the teaching in the prior art. Since the reference teaches that the composition may be in the form of lotion which may or may not be thickened, a low viscosity composition is also envisioned by Maubru. See col. 5, lines 44 – 45.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the compositions of the combined references by substituting the ceramides of Bergamann with the ceramides of Bergmann, as motivated by the latter, because 1) both Bergman and Maubru teach using ceramides in hair protecting compositions; and 2) Maubru teaches that the specific ceramides therein limits and prevents breaking of hair and damage due to blow-drying, and produces beautiful curls.

The skilled artisan would have been motivated to combine the references in expectation of successfully producing a hair care composition which protects the hair from damages of chemical treatment.

**Claims 35-51, 62, 63, 70, 71, 80, and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann, Flick, and Maubru as applied to claims 19, 20, 27-29, 32, 33, 52-54, 61, 56-58, 64-66, 69, 72-76, and 82 above, and further in view of Dubief et al. (US 6120757) ("Dubief").**

The combined references fail to teach the specific cationic surfactants of instant claims.

Dubief teaches a hair protection composition comprising quaternary ammonium surfactants. See col. 4, line 51 – col. 6, line 2; see instant claims 35-51. Adding ceramides is taught in col. 6, line 39. The reference discloses that the invention can be used in permanent waving, straightening products, for washing or rinsing, or as a leave-in product. See col. 6, lines 50 – 58. Since the reference teaches that the composition may be in the form of aqueous dispersion and spray, making a light viscosity composition comprising the said quaternary ammonium surfactants is suggested by the prior art. See col. 6, lines 24-28.

It would have been obvious to a skilled artisan to modify the hair liquid composition of the combined references by substituting the cationic surfactant of Bergmann with those of Dubief, as motivated by the latter, because 1) both Bergamann and Dubief are directed to hair protection compositions comprising conditioning agents, 2) Bergmann teaches using cationic surfactants such as quaternary ammonium salts; and 3) Dubief teaches the



specific types of quaternary ammonium salts which are useful for the same hair conditioning purposes.

**Claims 35-51, 55, 62, 63, 70, 71, 80, and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann and Flick as applied to claims 19, 20, 27-29, 32, 33, 52-54, 61, 56-58, 64-66, 69, 72-76, and 82 above, and further in view of Ochiai et al. (US 5587155) ("Ochiai").**

Bergmann fails to teach 18-methyleicosanoic acid and the quaternary ammonium cationic surfactants of instant claims.

Ochiai teaches hair-conditioning composition comprising 18-methyleicosanoic acid. See Table 3; Example 7; col. 1, line 54 – col. 2, line 54. The reference teaches that the fatty acid prevents hair damage and adds resilience to the hair, and renders moisturizing and hair conditioning effects. See col. 7, lines 36 – col. 8, line 60 for the application of the invention. Quaternary ammonium salts are taught in col. 3, line 36 – col. 5, line 51.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition of the Bergmann references by adding a well known hair conditioning ingredient such as 18-methyleicosanoic acid as motivated by Ochiai because of the expectation of successfully producing a hair care products with hair protection, moisturizing, and conditioning effects.

### ***Response to Arguments***

Applicant's arguments with respect to claims 19-82 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gina C. Yu whose telephone number is 571-272-8605. The examiner can normally be reached on Monday through Friday, from 8:00AM until 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Gina C. Yu  
Patent Examiner